



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

400 Seventh Street, S.W.  
Washington, D.C. 20590

AUG 9 2004

**FAXED**  
**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. Kenneth Bush  
Regulations Manager, Government Relations  
American Suzuki Motor Corporation  
3251 East Imperial Highway  
Brea, CA 92822

NVS-214jry  
PE04-055

Dear Mr. Bush:

The Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has received the attached information concerning alleged rear wheel lock-up due to catastrophic engine failure in certain DR350-series motorcycles. We are aware of four failures, one involving a DR350SE dual-purpose motorcycle and the others involving DR350 off-road vehicles. Both, it is alleged, may experience the same failure since both use the same internal engine parts.

To assess whether these reports indicate the existence of a defect trend, we are opening this PB and request the following information. Unless otherwise stated in the text, the following definitions apply to this information request:

**Subject Vehicles:** All MY 1990-1999 Suzuki DR350-series motorcycles produced for sale in the United States.

**Subject Components:** the crank balancer assembly including the balance shaft (including, but not limited to, PN 12651-29F00), balance shaft gear (including, but not limited to, PN 12661-14000), gear-indexing pin (including, but not limited to, PN 04221-08149), and right-side crankshaft (including, but not limited to, PN 12221-14001).

**Alleged defect:** a mis-indexing of the balance shaft due to crank balance shaft gear and pin separation.

**Suzuki:** American Suzuki Motor Corporation, its parent company, and all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its divisions, subsidiaries (whether or not incorporated) and affiliated



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enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of Suzuki (including all business units and persons previously referred to), who were involved in any way with any of the following related to the alleged defect in the subject vehicles:

- a. Design, engineering, analysis, modification, or production (e.g., quality control);
- b. Testing, assessment, or evaluation;
- c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
- d. Communication to, from or intended for zone representatives, field quality engineers, assembly plant engineers, component suppliers, assembly wholesalers, retailers, or other field locations, including but not limited to people who have the capacity to obtain information from wholesalers or retailers, all officers, employees, agents, contractors, and consultants of Suzuki, whether assigned to its principal office or to any of its field locations, and all records or files maintained by the company either in hard copy form or in electronic storage media.

**Documents:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by Suzuki, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document containing any note, comment, addition, deletion, insertion, annotation, or otherwise comprising a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)" also means any identical copies of the original and all

non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by the Suzuki or not. If a document is not in the English language, provide both the original document and an English translation of the document.

**Other Terms:** To the extent that they are used in these information requests, the terms "claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good will," "make," "model," "model year," "notice," "property damage," "property damage claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as Suzuki has previously provided a document to ODI, Suzuki may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner corresponding with the organization of this information request letter (including all individual requests and subparts). When documents are produced that would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After Suzuki's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model and model year, the number of subject vehicles Suzuki has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Suzuki, state the following:
  - a. Vehicle identification number (VIN);
  - b. Model;
  - c. Model Year;
  - d. Date of manufacture;
  - e. Date warranty coverage commenced; and
  - f. Selling dealer identification (dealer name, address, phone, and Suzuki's dealer identification number).

Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA." See *Enclosure 1, Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.*

2. State the number of each of the following, received by Suzuki, or of which it is otherwise aware, which relate to, or may relate to, the alleged defect:
  - a. Consumer complaints, including those from fleet operators;
  - b. Field reports, including dealer field reports;

- c. Reports involving a crash, injury, or fatality, based on claims against Suzuki involving a death or injury, notices received by Suzuki alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
- d. Property damage claims;
- e. Third-party arbitration proceedings where Suzuki is or was a party to the arbitration; and
- f. Lawsuits, both pending and closed, in which Suzuki is or was a defendant or codefendant.

For subparts "a" through "d", separately state the total number of each item Suzuki has identified (e.g., consumer complaints, field reports, etc.). Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "f," provide a summary description of the alleged problem and causal and contributing factors and Suzuki's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "e" and "f," identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
  - a. Suzuki's file number or other identifier used;
  - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
  - c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
  - d. Vehicle's VIN;
  - e. Vehicle's engine number;
  - f. Vehicle's model and model year;
  - g. Vehicle's mileage at time of incident;
  - h. Incident date;
  - i. Report or claim date;
  - j. Whether a crash is alleged;
  - k. Whether property damage is alleged;
  - l. Number of alleged injuries, if any; and
  - m. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "COMPLAINT DATA." See *Enclosure 1, Data Collection Disc*, for a pre-formatted table that provides further details regarding this submission.

4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Suzuki used for organizing the documents.
5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Suzuki to date that relate to, or may relate to, the alleged defect in the subject vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; and field, zone, or similar adjustments and reimbursements.

Separately, for each such claim, state the following information:

- a. Suzuki's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Engine Number;
- e. Repair date;
- f. Vehicle mileage at time of repair;
- g. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- h. Labor operation number, including, but not limited to 030505A;
- i. Problem code;
- j. Replacement part number(s) and description(s);
- k. Concern stated by customer; and
- l. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

6. Describe in detail the search criteria used by Suzuki to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by Suzuki on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Suzuki offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.
7. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Suzuki. For each such action, provide the following information:
  - a. Action title or identifier;
  - b. The actual or planned start date;

- c. The actual or expected end date;
- d. Brief summary of the subject and objective of the action;
- e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
- f. A brief summary of the action activities, findings and/or conclusions.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

8. Describe all modifications or changes made by, or on behalf of, Suzuki in the design, material composition (including material hardening), manufacture, quality control, supply, or installation (including lubricant) of a subject component, from the start of production to date, which relate to, or may relate to, the alleged defect. For each such modification or change, provide the following information:
  - a. The date or approximate date on which the modification or change was incorporated into vehicle production;
  - b. A detailed description of the modification or change;
  - c. The reason(s) for the modification or change;
  - d. The part numbers (service and engineering) of the original component;
  - e. The part number (service and engineering) of the modified component;
  - f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
  - g. When the modified component was made available as a service component; and
  - h. Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that Suzuki is aware of which may be incorporated into vehicle production within the next 120 days.

9. Separately, for each of the subject components – and listed by part number, part description, and month/year of sale – state the number of subject components Suzuki has sold.
10. Furnish Suzuki's assessment of the alleged defect in the subject vehicles, including:
  - a. The causal or contributory factor(s) (including the vehicles intended use);
  - b. The failure mechanism(s);
  - c. The failure mode(s);
  - d. The risk to motor vehicle safety that it poses; and
  - e. What warnings, if any, the rider would have that the alleged defect was occurring or about to occur?

This letter is being sent to Suzuki pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information.

Suzuki's failure to respond promptly and fully to this letter could subject Suzuki to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) Please note that maximum civil penalties under 49 U.S.C. § 30165 have increased as a result of the recent enactment of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, Public Law No. 106-414 (signed November 1, 2000). Section 5(a) of the TREAD Act, codified at 49 U.S.C. § 30165(b), provides for civil penalties of up to \$5,000 per day, with a maximum of \$15 million for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. This includes failing to respond to ODI information requests.

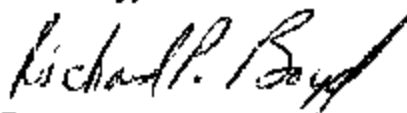
If Suzuki cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, Suzuki does not submit one or more requested documents or items of information in response to this information request, Suzuki must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

Suzuki's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by **October 1, 2004**. Please refer to **PE04-055** when responding to this letter. If Suzuki finds that it is unable to provide all of the information requested within the time allotted, Suzuki must request an extension from me at (202) 366-4933 no later than five business days before the response due date. If Suzuki is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information Suzuki then has available, even if an extension has been granted.

If Suzuki claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, Suzuki must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended (68 Fed. Reg. 44209 et seq; July 28, 2003), to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street, S.W., Washington, D.C. 20590. Suzuki is required to submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.

If you have any technical questions concerning this matter, please call Bob Young of my staff at (202) 366-4806.

Sincerely,



Richard P. Boyd, Chief  
M&HDT Division  
Office of Defects Investigation

Enclosure 1, one CD ROM titled "Data Collection Disc" containing three files and one scanned copy of the information initially alerting us to this issue.



**Subj: FW: DR350 CRANKSHAFT PROBLEM**

**File: DRZ440woblastPhoto's.zip (2962689 bytes) DL Time**

Hi Robert, hope this gets to you. My best regards Jesse  
[www.kicntech.com](http://www.kicntech.com)

Original Message--

From: Jesse Kientz [mailto:[jesse@rvf.net](mailto:jesse@rvf.net)]

To: [ryoung@nhssa.dot.gov](mailto:ryoung@nhssa.dot.gov)

Subject: RE: DR350 CRANKSHAFT PROBLEM

Hi Robert, here is the letter that I sent to Mr. Davo Soaric describing what I have found. Let me know if your firewall strips off the pictures or if you need further info...Jesse

Hi. My name is Jesse Kientz. The subject that we covered was the DR350 concerning failures of the engine due to a hole in the crankshaft that is suppose to lock the drive gear for the counter balancer to the crankshaft. This indexing hole is supposed to be drilled just deep enough to keep locking pin that is pressed into the counter balancing drive gear from escaping. Well somewhere someone at the crank factory is drilling this hole clear through the right crank half. This allows the locking pin to move into the crank if its press fit happens to be marginal. When this happens to a point of escaping the drive gear, the crankshaft and counter-balancer are no longer timed the rod hits the heavy counter balancer weight and blows it right out the front of the engine. This destroys the cases, counter-balancer, cylinder sleeve and crankshaft.

The Danger in this to the rider on a busy freeway, or passing a vehicle with oncoming traffic coming at you plus numerous other possible scenarios is really frightening.

I am sending this as well as some photos that I took of the engine and parts that I sent to Suzuki. I have called them about 5 times to report this and see if they have done some checking with the parts department but so far I have received no feedback from them.

I have came across quite a few 97, 98, and 99 models that have not yet self-destructed and have made a repair to them by pressing a tight fitting pin to replace what was drilled out. I gave this pin a .003" press fit and it is .385" long with a .321" diameter and a .018" hole so it should not allow the locking pin to move beyond its home in the crank. But quite a bit of work is involved to remove the crank to perform this task. I could order a new crank or crank right half but am afraid that I will get one just like I have and then will have to fight with the dealer and Suzuki to get it corrected.

This is where we are at this point I feel it is possible that other models 94-96 may be affected but this remains to be found as I have a 96 engine coming my way soon and will let you know what I find with it. I feel that all Suzuki has to do is check their parts bin for the Right crank half as well as the complete units for this drilled through hole and then let me know what they find and what they intend to do about it. I went to a bit trouble and expense to send these parts to them.

My Best Regards Jesse Kientz  
[www.kicntech.com](http://www.kicntech.com)

## DR350 Crank Shaft Failure Alert Explained

The subject that I want to cover is The DR350 concerning failures of the engine due to a hole in the crankshaft that is suppose to lock the drive gear for the counter balancer to the crankshaft. This indexing hole is supposed to be drilled just deep enough to keep the locking pin that is pressed into the counter balancing drive gear from escaping. Well some where some one at the crank factory is drilling this hole clear through the right crank half. This allows the locking pin to move into the crank if its press fit happens to be marginal. When this happens to a point of escaping the drive gear the crankshaft and counter balancer are no longer timed the rod hits the heavy counter balancer weight and blows it right out the front of the engine. This destroys the cases, counterbalancer, cylinder sleeve and crankshaft.

The Danger in this to the rider on a busy freeway, or passing a vehicle with oncoming traffic coming at you plus numerous other possible scenarios is really frightening.

I am sending this as well as some photos that I took of the engine and parts that I sent to Suzuki.

I have came across quite a few 97, 98, and 99 models that have not yet self destructed and have made a repair to them by pressing a tight fitting pin to replace what was drilled out I give this pin a .002" press fit and it is .375" long the diameter is .320" and the hole is .318" so it should not allow the locking pin to move beyond its home in the crank. But quite a bit of work is involved to remove the crank to perform this task. I could order a new crank or crank right half but am afraid that I will get one just like I have and then will have to fight with the dealer and Suzuki to get it corrected.

This is where we are at this point I feel it is possible that other models 94-96 may be affected but this remains to be found as I have a 96 engine coming my way soon and will let you know what I find with it.

For damaged component pictures [click here](#)

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## DR350 Crank Shaft Failure Alert



(Right) Indexing hole in the crank drilled all the way through.  
(Left) Hole drilled just deep enough to capture and hold indexing pin that's pressed in to the drive gear.



Counter Balancer drive gear that the pin became unpressed into the drilled through crank half.



Case damage where counter balancer was hit and knocked forward by the untimed crank shaft.



The force of hitting the counter balancer knocked the bottom end off of the rod.



Notice this serious smile in the counter balancer from the impact of the connecting rod.



The crank shaft without a rod.

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